

lover of nature who meets this delightful monograph will have warm feelings towards the author and will claim him as a friend.

Twenty years ago the boy Sladen produced a stencil-printed treatise on the Humble Bee. Since 1892 he has pursued the study of his subject, surpassing most other observers by his careful investigation of details, by which means he has been able to describe a variety of remarkable incidents in the life-history of the humble bee which had hitherto escaped attention.

The humble bee and the honey bee are the only bees in the temperate zone that produce workers and dwell in communities. Of true humble bees, comprising the genus *Bombus*, there are seventeen different species found in the British Isles, and six species of the genus *Psithyrus*, or parasitic humble bees. The difficulty of separating some of the species—one that even skilled entomologists have long experienced—will now be met by the collection of beautiful color photographs, with descriptions, published in the volume.

The humble bee is no less industrious than the honey bee; she begins work at an earlier age and is earlier out in the morning and later at night. The few ounces of honey which she stores as her maximum is of no account for human consumption, and, in this respect, she falls far short of the honey bee as a friend of man; but as a fertilizing agent she is invaluable, her much-longer tongue enabling her to work upon whole groups of plants from which the honey bee is excluded. The drones are not the idle, pampered males with which we are more familiar in our apiaries; these maintain themselves, setting an example which many of us could wish that our noisy blusterers might be trained to follow. The queen displays a higher intelligence and, in some respects, a much greater capacity than the queen honey bee; she is no

mere machine for laying eggs, but worker as well as mother, as a devoted nurse, providing food, warmth, and protection for her brood. When the workers make savage attacks upon male and queen eggs, the queen throws them down and repairs the cells, maintaining watch and counter-attack for several hours until the enemy admits defeat. When one has read of all her patient labor, brave defence, and watchfulness, one is glad to know that she may often "knit up the ravell'd sleeve of care," and drop off to sleep, with her antennae resting on her face, slumbering in her nest, or on some fragrant flower, for the moment forgetful of the cares that have been and are yet to be. A charming frontispiece shows us one of Mr. Sladen's pet queens incubating her brood. It was necessary that she should sit still for about half a minute to have her photograph taken; from which arose many failures during an ordeal lasting two hours. Though she took wing several times, she was as often netted and returned, her dusty coat was carefully cleaned with a camel's hair brush and, at length, sitting upon her brood, quite gay and graceful, as though she knew that she was to be immortalized in the forefront of her master's book, her pretty picture was taken. One likes to hear that this dear, mother bee passes painlessly at last from the scene of her surprising labors.

"The aged queen often spends the evening of her life very pleasantly with her little band of worn-out workers. They sit together on two or three cells on the top of the ruined edifice, and make no attempt to rear any more brood. The exhausting work of bearing done, the queen's body shrinks to its original size, and she becomes quite active and youthful-looking again. This well-earned rest lasts for about a week, and death, when at last it comes, brings with it no discomfort. One night, a little cooler than usual, finding her food supply exhausted, the queen grows torpid, as she has done many a time before in the early part of her career; but on this occasion, her life-work finished, there is no awakening."

January, 1913

The enemy many. Ant wax moth, devour the idle genus *P.* kill the queen workers, ob young instead sisters. these foes th struction.

The author protecting his enemies, and history. No without realized up a fascination of his boy to him now, and with the public volume, many ment where he of nature will els, jam jars, and of humble bees will be the exciting digging out the them to gardens of the new pets their wants attending little risk of stirring of a sting-poison of the honey bee aid of Sladen's workers bees will be attracted and their intelligence leisure and in common.

MY EXPERIENCE TREATMENT FOUL

PAPER READ BY MR.
STATE APIARY INS
N.Y., AT THE CON
TARIO BEE-KEEPERS

I had long looked when I could meet bee-keepers. I think the most discouraged